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A Dynamic Systems View on Leadership, Talent, and Intelligence

Wolf Kozel

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A key question concerning leadership is whether leaders are born or made. Research has shown that although genetic temperament may play a role, environment is a large factor (Ceci, 1996). A determinist point-of-view may consider that if something exists, then it can be measured and organizations would be foolish not to use tests to assess talent and leadership. In contrast, however, a dynamic systems view of leadership would contend that the variables that determine leadership are numerous, interacting, with small differences sometimes resulting in great changes.

An IQ score is only weakly correlated with success (Gardner, 1999; Ceci, 1996; Taleb, 2007). Many, if not most, outstanding individuals were not identified as exceptional in schools. Outstanding individuals who think differently may not fit neatly into a label or category and because of this are difficult to identify. There is truth rather in those common inspirational stories of “C” students who later become high achievers. In a study of people of eminence, only twenty percent of this group consistently received superior grades in high school or college (Ludwig, 1995). Taleb (2007) contends that the classroom rewards the sterile and within-the-box thinking, whereas the real-world favors the curious, the passionate, the street-wise—and the lucky. There are many examples of students performing poorly in school but thriving outside of it. One example, Winston Churchill did not only not thrive in school, but is reported to have had a learning disability and said of his school experience: “I was, on the whole, considerably discouraged by my school days. It was not pleasant to feel oneself so completely outclassed and left behind at the beginning of the race” (Lucarinfo, 2008). Many times examples such as Churchill’s are given to motivate non-academically inclined students but the truth is the success these students achieve are not exceptions to the rule—of somehow even blind hogs finding an acorn—but in fact these underperforming school students may be more likely to become eminent than their straight A-scoring compatriots (Ludwig, 1995). Had Albert Einstein passed his entrance to the Swiss Polytechnic College (instead of failing the exam)—and had Einstein been indoctrinated into the standard theory of physics of his day, perhaps under a dominating professor—would Einstein on that fateful day on the trolley-car—have daydreamed his theory of relativity?

According to Sally Shaywitz, a neurobiologist at Harvard university, dyslexics are over-represented among the top rank of CEOs and achievers (Morris, Munoz & Neering, 2002). It is presumed by Shaywitz that dyslexics may learn early on coping skills, resilience, risk-taking, humility, as well as people skills. The high achievement of people with dyslexia runs counter to the standard view of dyslexia as a disability.

Yet when we take the inverse, those whom society has labeled as “geniuses”—we often find spectacular failure. Several books with often provocative titles have been written that echo this theme. Halberstam’s *Best And The Brightest* (2001) narrates how President Kennedy’s brain-trust involved America in Vietnam. McLean’s and Elkind’s *Smartest Guys in the Room* (2004) tells the story of how America’s seventh-largest company, Enron, went bankrupt. Yet another book, Lowenstein’s *When Genius Failed: The Rise and Fall of Long-Term Capital Management* (2001), tells the story of a hedge fund that employed several Nobel Prize laureates and their spectacular failure despite highly sophisticated quantitative models. In 2003, in the run-up to the Iraq war, a widely circulated Internet

email asked the question: “Who is more intelligent—Hollywood or the Bush administration” and compared the educational pedigrees of the Bush administration (many of whom have master’s degrees or PhD’s) to Hollywood celebrities (many of whom dropped out of high school or did not pursue college because of their acting or performing careers) (Snopes, 2007). The implication being that the Bush administration was more intelligent and knew more than Hollywood actors.

Taleb (2007) contends that in real-life elites often show an epistemological arrogance by believing that they know more than others while also drastically overpredicting the extent and power of this knowledge. Some professions are more susceptible to this than others. David Boies, the lawyer who beat Microsoft and who is dyslexic (as well as having children with dyslexia), says: “In this environment, you get children who think they are masters of the universe, and children who think they are failures, when they’re 10 years old. They’re both wrong. And neither is well served by that misconception” (Morris, Munoz & Neering, 2002).

Many times a great discovery has been later found to have been presaged by an apparently identical discovery made earlier that was ignored. Alexander Graham Bell’s name may be known by every schoolchild, but Antonio Meucci who lacked the funds to patent his invention, is almost forgotten. Christopher Columbus was celebrated as a hero several decades ago, but does anyone doubt that if Columbus did not receive funding for his ships that another sailor would undoubtedly have discovered the New World for Europe fairly soon thereafter? These examples show that many great inventors and discoverers may not have been quite as exceptional as some believe. If our world exists in a dynamic critical state then revolutionary achievements will be set off not by genius but instead occur seemingly randomly, set off by a fortunate string of events (Buchanan, 2000).

Page’s research (2007) in his book *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies*, shows a randomly assigned group will often routinely outperform a group that is especially selected for the task. Page observes that in the popular television quiz show “Who Wants to Be a Millionaire?” the “Ask the Audience” option has a higher percentage of correct answers than the option “Phone a Friend”—a friend who is chosen because they are ostensibly an expert and well-read in many fields. Page’s book provides additional compelling evidence of the power of diversity in thought.

Goleman’s emotional intelligence and the Hyatt’s emotional maturity concept provide an insight of what makes a good leader and other qualities necessary to run a team and achieve success. Studies have shown that those leaders who were strong in emotional intelligence performed better than even those leaders with more relevant experience or a higher IQ (Hyatt, Hyatt & Hyatt, 2007). Robert Greenleaf (2003) has written extensively on the principles of servant-leadership where leaders seek to engage stakeholders and make sure the stakeholder’s highest needs are being met. This is a radically different paradigm from the scientific hierarchical management style of Frederick Taylor.

In Taleb’s (2007) *The Black Swan*, Taleb explains the unpredictability of paradigm-shifting events. Taleb invents two countries “Mediocristan” and “Extremistan.” In Extremistan chaos reigns, the wholly unexpected happens, fractal geometry applies, and the normal curve does not. Human minds assume that we are in Mediocristan where past experience is predictive of the future, linear rules apply, and the “normal” bellcurve applies. Society and schools seem to believe that intelligence is from Mediocristan whereas it may well be from Extremistan. Greatness is simply not on a normal curve. If genius was on a

normal curve, two percent of the population would be expected to fall in the genius category. Leadership, akin to Gardner's view on intelligence, seems to be context-specific: a person can be a leader on a playing field with a sport they are quite competent at—but not be a leader in mathematics class or a leader on a work project.

Human achievement is more complex than what can be assessed by one or two tests (or an observation, or a checklist). Instead, we see the chaos inherent in a system where often the “many that are first shall be last; and the last shall be first.” (King James Bible, Mathew 19:30). In addition, schools seem to follow the Frederick Taylor model where students are labeled gifted and little emphasis may be placed on working with diverse groups, emotional intelligence/maturity, reflection, and true leadership by empowering others.

Dynamic Systems Theory (DST) provides a new framework for looking at complex systems. Dynamic systems theory was originally developed for biology but is also finding a place in social science research. DST is a blend of catastrophe and chaos theory and seeks to explain complex systems where many variables interact with each other and the system is constantly changing. Classic examples of dynamic systems are the weather and traffic. In a dynamic system, a small difference can lead to great effects: “A butterfly beating its wings over Peking causes a thunderstorm over New York next month.”—is a common DST saying trotted forth to illustrate the power of small changes. One of the key characteristics of dynamic systems is that assessment and prediction can be problematic (de Bot, 2006).

Leadership and intelligence is not a “one-size fits all” construct but may be content and context specific. A DST approach shares many philosophical and scientific commonalities with the popular and influential Multiple Intelligences theory of Howard Gardner (Gardner, 1993). A DST paradigm allows for other variables and developmental pathways and DST offers a gateway for these other attempts and theories to contribute to a dynamic systems model. A DST view on leadership assumes that leadership is a complex process, with known unknown variables as well as unknown unknown variables. Leadership is a chaotic system where persons with dyslexia may thrive while MBAs founder.

Intelligence and leadership are similar to weather. We may include different and additional variables into our predictions, but no matter what we do, we find that five days out, the weather often bears little relation to initial conditions and predictions.

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